THIS BRIEF NEWS LETTER

Aims to give information on developments in four great chemical laboratories, and results of field and technical work of interest to agriculture.

It is based on work done in the laboratories of the du Pont Company; The Grasselli Chemical Company, a subsidiary; The R. & H. Chemicals Department of the du Pont Co. (formerly The Roessler & Hasslacher Chemical Co.); and the Bayer-Semesan Company.

Also on the field work and agricultural experiment station work done by chemists, technical men and holders of fellowships endowed by the du Pont Company or its subsidiaries or partially owned companies.

We shall also be glad to furnish you with articles written in collaboration with the chemical experts referred to above, for use in your local newspapers or other publications, or in radio talks.

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SEED CORN TREATMENT IS BENEFICIAL

Dr. R. H. Porter of the Iowa Experiment Station reports in the Plant Disease Reporter, Volume 16, No. 17, December 1, 1932, the following:

> "We have just completed the sixth year of field tests in Iowa using organic mercury dusts on farmers' planter-box corn. ---- The dusts used were Merko, Semesan Jr., and Barbak. ---- The weighted average increase for all varieties in all counties this year due to seed treatment was 5.1 bushels, the highest figure obtained in the six-year period. ---- The average for the six-year period is 3.9 bushels per acre. This gain has been secured at a cost of about 4 cents per acre."

Drs. J. R. Holbert and Benjamin Koehler, report in the Illinois Agricultural Experiment Station Technical Bulletin No. 260 as follows:

> "The use of seed treatments is usually followed by better stands and increased early vegetative growth. Occasionally corn grown from treated seed has had somewhat greater resistance to lodging. Ear rots were slightly reduced by the use of seed treatments. The yield of corn grown from average farmer's seed was increased about 3 bushels by the use of the better corn-seed dust disinfectants.

IS THIS THE END OF THE CODDLING MOTH AND THE MEXICAN BEAN BEETLE?

The Grasselli Fellowship at the Ohio Experiment Station in 1931 and 1932 found that barium fluosilicate (trade name, Dutox) was safe on plant foliage and controlled the coddling moth, Mexican bean beetle, and many other injurious insects. It is non-arsenical. Newcomer of the U. S. Bureau of Entomology used Dutox in combination with a small quantity of summer oil spray, the latter for adhesive purposes. Newcomer's work was verified by that of Dr. W. S. Regan of the California Spray Chemical Co. Both investigators worked in the Pacific Northwest. The Grasselli Fellowship checked this work for Eastern conditions.

MORE ON THE MEXICAN BEAN BEETLE

Marcovitch, state entomologist of Tennessee, the second state to be infested with the Mexican Bean Beetle, established the fact that Dutox - barium fluosilicate - as a dust could control the pest.

DISINFECTING COTTON SEED HELPS SECURE FULL STANDS AND LARGER YIELDS

Poor germination and uncertain stands of cotton largely can be overcome, according to D. T. Killough, of Texas Agricultural Experiment Station, who reports marked increases in stands were secured in 1930 and 1931 by treating cotton with a fungicide dust known as Ceresan. ----

After cotton was planted and thinned, treated rows in 1930 showed a full stand of plants of the spacing desired, while untreated rows had only 56.9 per cent of a stand. In 1931 untreated rows had 87.3 per cent of a stand while treated rows showed a full stand. As a result of the increase in stand there was a corresponding yield increase. Treated plots in 1930 averaged 753 pounds of seed cotton per acre against only 327 for the untreated. In 1931 treated plots averaged 1,111 pounds and the untreated 984.

These tests indicate the opportunity of increasing cotton yield by getting better stands through seed treatment. Cost of treatment is small and saving of seed alone may cover the cost, but the better stand obtained often may mean a large increase in yield and profit from the crop.

IT IS NOW CANNED

P. A. C. Formaldehyde, recommended for many agricultural uses by government bureaus and by many of the county and state agricultural farm bureaus, now comes in a factory-sealed tin for the better convenience of farmers.

ARE YOU HAVING TROUBLE CONTROLLING THE CRANBERRY ROOT GRUB?

Several years ago, Dr. H. J. Franklin of the cranberry experiment station of the Massachusetts Agricultural

Experiment Station, started studies of control investigation to find out what could be done with the cranberry root grub. This work established:

(1) The effectiveness of cyanide solution for the control of the grub.
(2) The proper cyanide concentration of these solutions, which is, the maximum lethal dosage of cyanide for this grub that may be used without injuring the cranberry plants.

This work is reported in Bulletin No. 271 of the Massachusetts Agricultural Experiment Station, or full particulars can be had from the R. & H. Chemicals Department of the du Pont Company, Wilmington, Del.

RAISING GAME FOR PROFIT

Game birds as a farm crop have been given intensive study by the U. S. Department of Agriculture and the American Game Society of Washington, D. C. Farmers' Bulletin No. 1521 of the U. S. Department of Agriculture, gives full details for the propagation of game birds.

THE QUICKEST WAY TO DRAIN LAND

The Agricultural Extension Section of the du Pont Company, staffed with explosives experts, has just completed extensive field work on determining economical methods of blasting ditches with dynamite. A pamphlet giving the results of the latest methods has now been completed and will be sent on request.

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